



**BIOrescue:**  
A novel biorefinery concept for mushroom compost

[www.biorescue.eu](http://www.biorescue.eu)

# HIGHLY EFFICIENT ENZYMES FOR SUGAR RECOVERY

Petri Ihalainen, EU project manager, MetGen Oy  
[Petri.Ihalainen@metgen.com](mailto:Petri.Ihalainen@metgen.com)

TOWARDS A CIRCULAR BIOECONOMY IN SPANISH INDUSTRY. 11 OCTOBER. MADRID.

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OUR MISSION

**EMPOWERING INDUSTRIES TO ENHANCE  
VALUE OF BIOMASS**

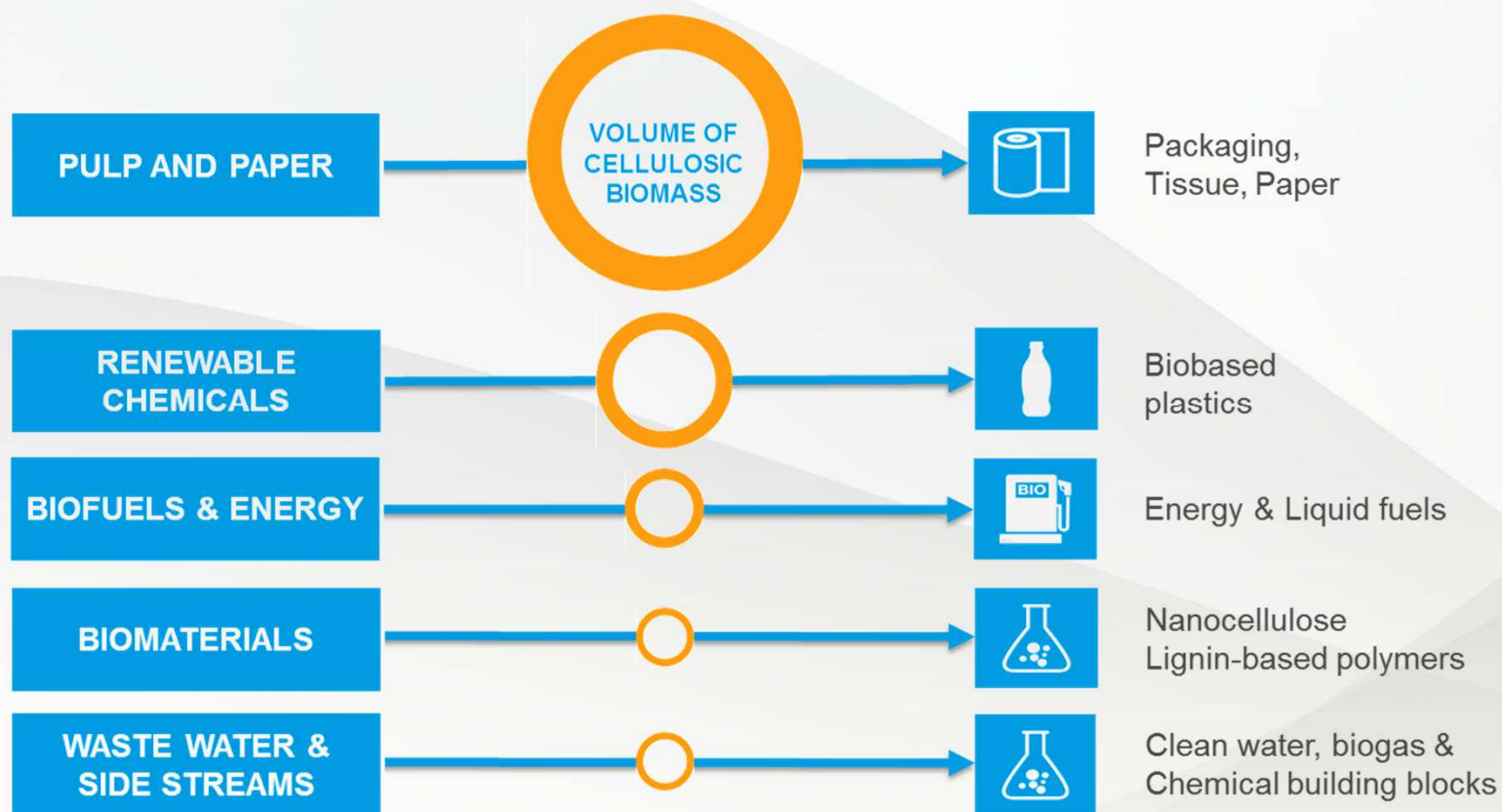
[www.metgen.com](http://www.metgen.com)





# METGEN STRATEGIC FOCUS

## LIGNOCELLULOSIC BIOMASS CONVERSION IN MULTIPLE SEGMENTS





## ENZINE<sup>®</sup> TECHNOLOGY PLATFORM

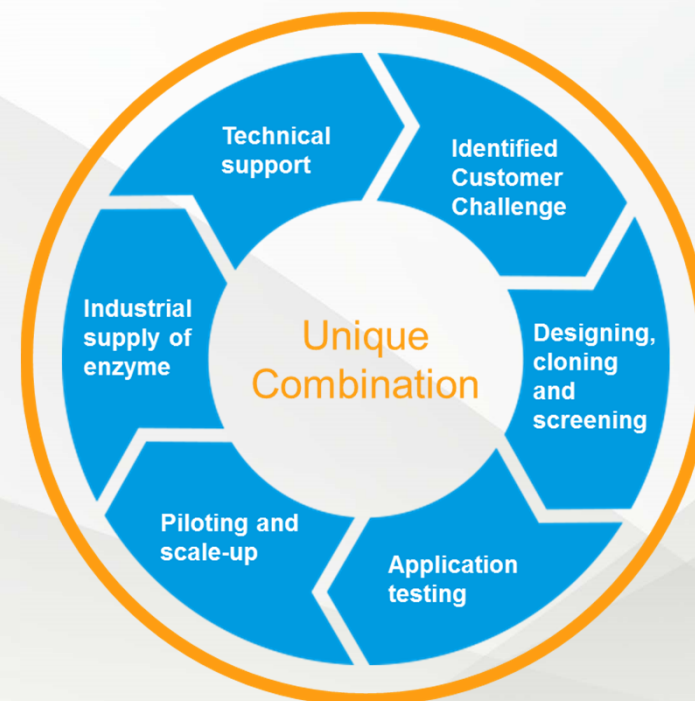
### STRONG CHAIN OF COMPETENCE

**FAST:** Industry leading short development cycle

**FLEXIBLE:** Tailored enzyme design approach to meet challenging industrial conditions

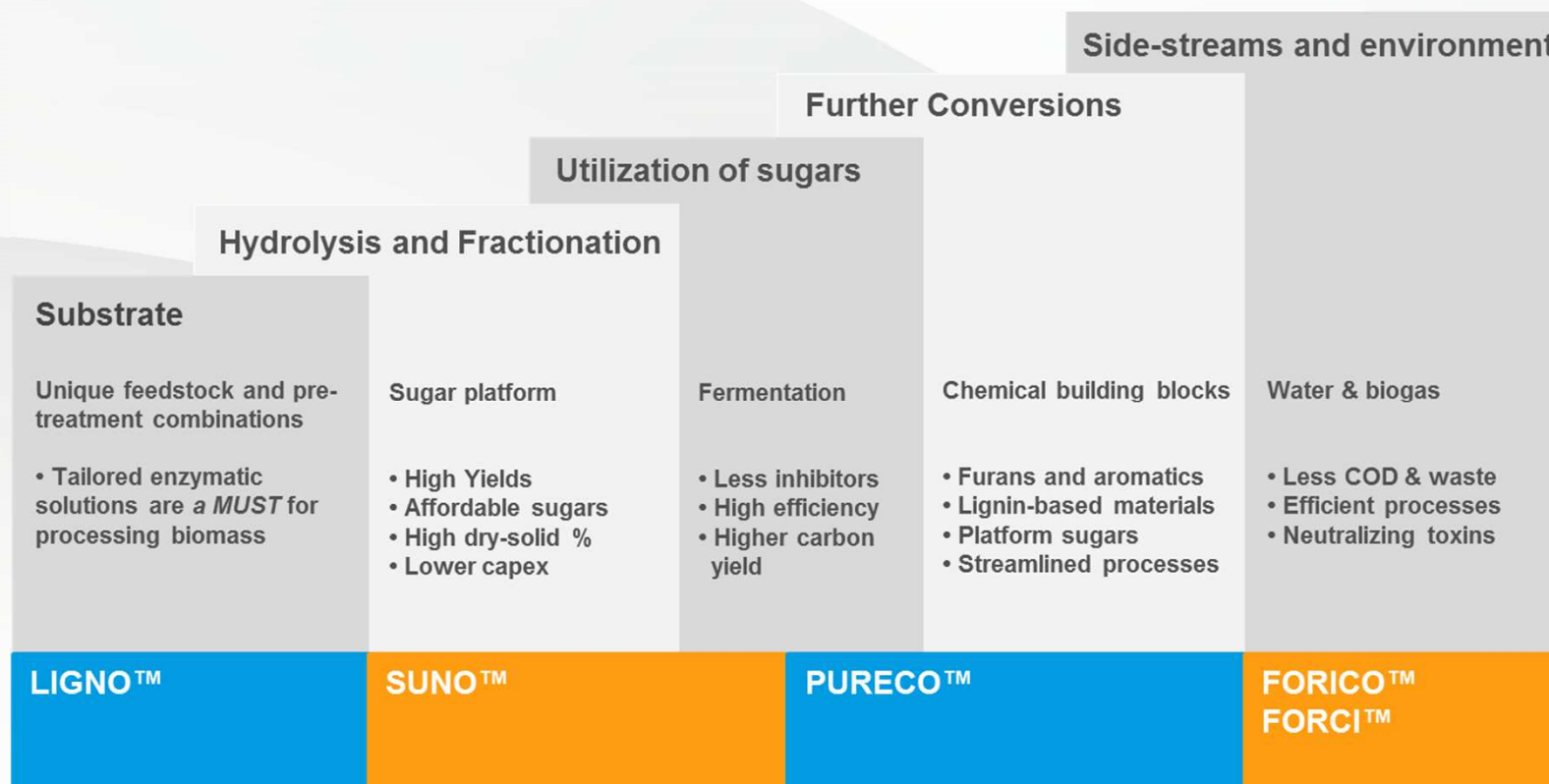
**ADAPTABLE:** Can produce large amounts of different enzymes, cost-effectively and supply globally

**PROVEN:** Developed several novel enzymes from concept to validation at industrial scale and production





# METZYMES® COVER THE FULL VALUE-CHAIN IN BIOPROCESSING





## METZYME<sup>®</sup> SUNO<sup>™</sup>

### ENZYME PRODUCT FAMILY FOR CELLULOSIC SUGARS

MetZyme<sup>®</sup> SUNO<sup>™</sup> is a game-changing enzyme solution designed to significantly improve the economics of lignocellulosic chemicals production.

MetZyme<sup>®</sup> SUNO<sup>™</sup> operates in a wide range of the process parameters beyond typical enzyme-related restrictions.

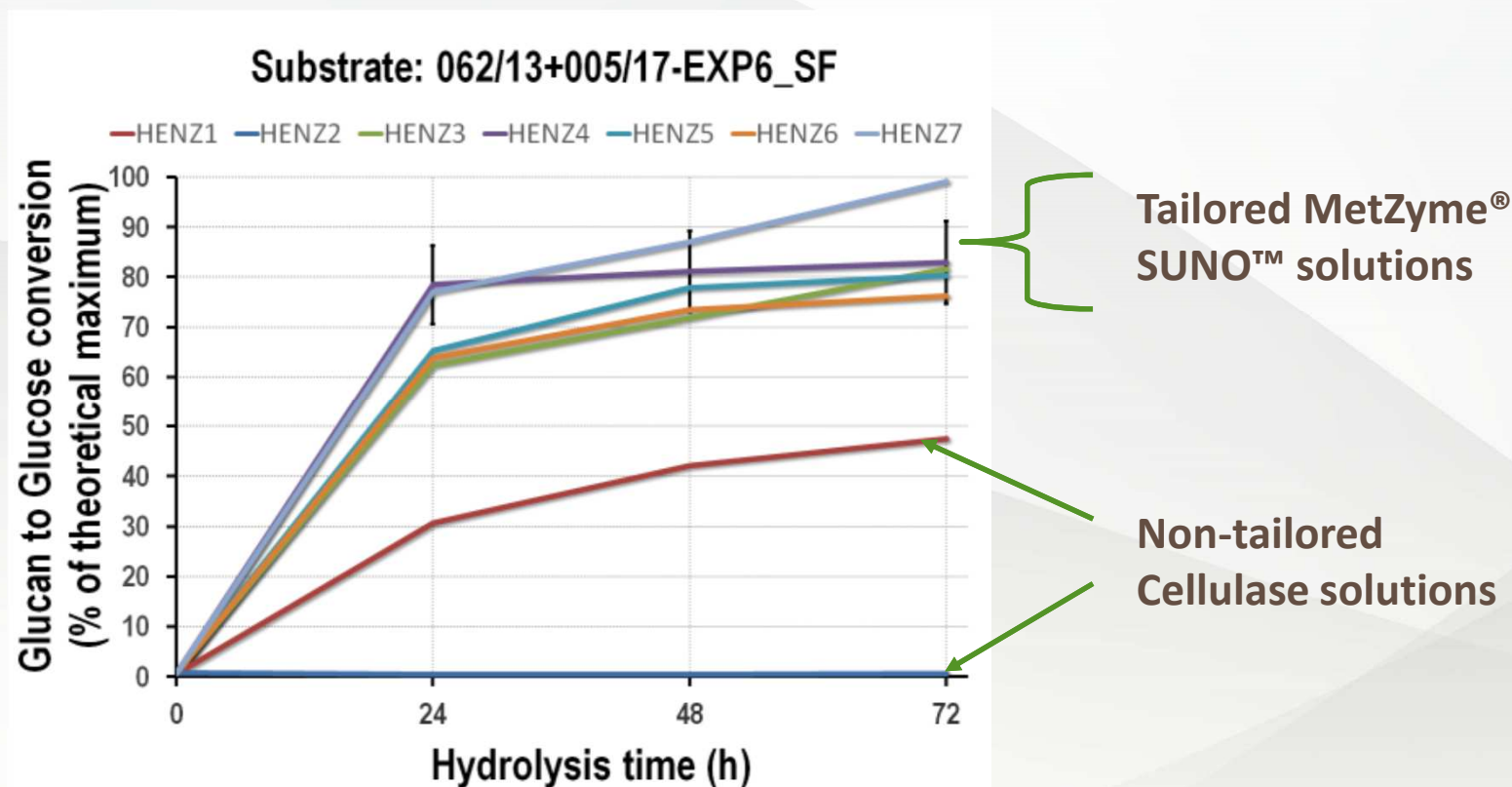
MetZyme<sup>®</sup> SUNO<sup>™</sup> solution is individually tailored for each lignocellulosic biomass and process. Focus is on two key-areas:

- **Right enzyme characteristics lower enzyme dosing and technology cost**
- **Maximizing the dry-matter content lowers CapEx**



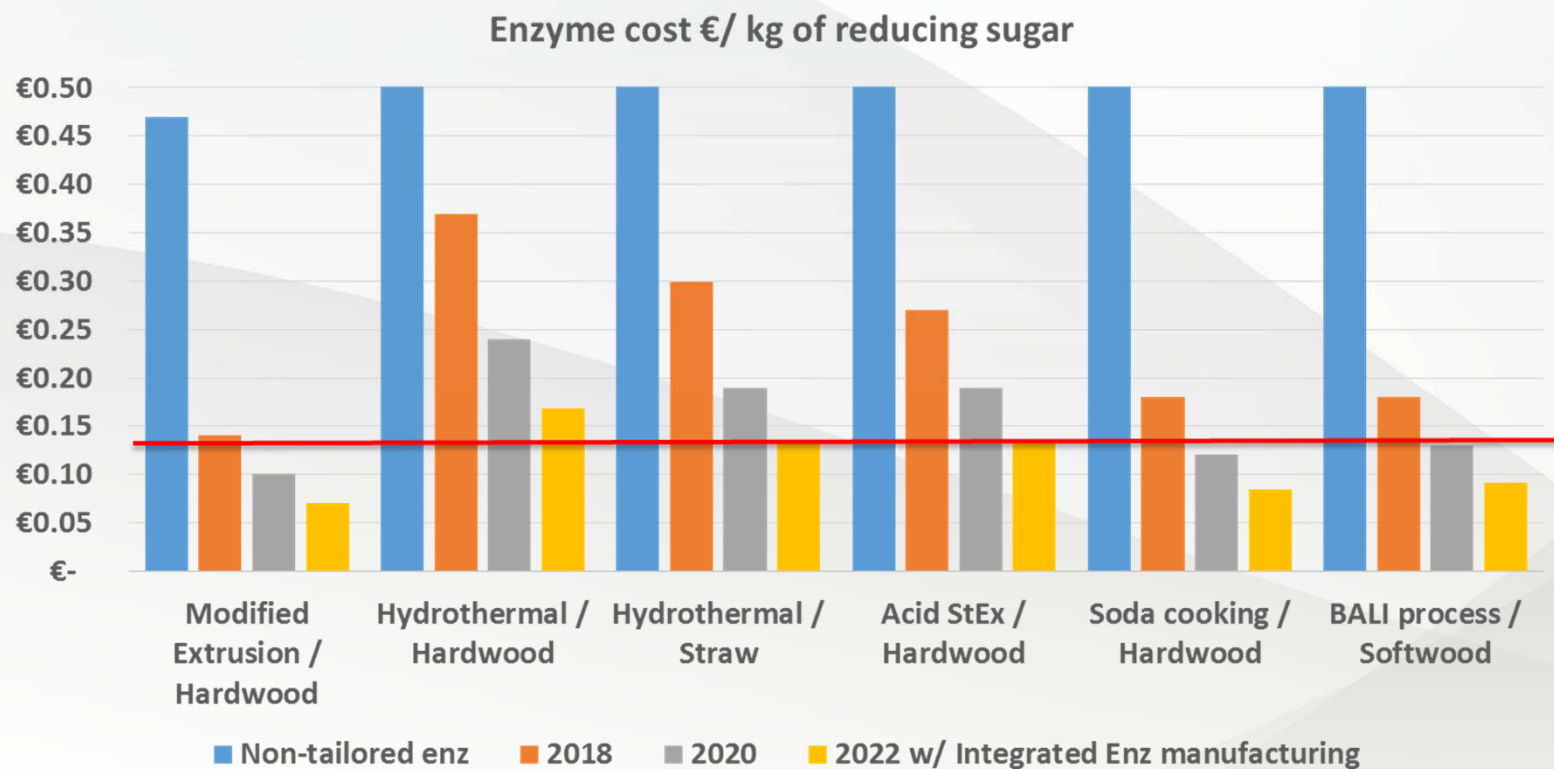
# BIORESCUE PROJECT – A CASE STUDY EXAMPLE

## THERMOCHEMICALLY PRETREATED WS/SMS SUBSTRATE





## EVOLUTION OF ENZYME COST IN CELLULOSIC SUGAR PROCESSES



## EU FUNDED HORIZON 2020/BBI JU PROJECTS

57 PARTNERS IN 9 EU PROJECTS WITH TOTAL OF 90 M€ GRANT VALUE



SWEETWOODS



FALCON (720918), SWEETWOODS (792061), WoodZymes (792070), UNRAVEL (792004), BIOrescue (720708) and BIOFOREVER (720710) have received funding from the Bio Based Industries Joint Undertaking / European Union's Horizon 2020 research and innovation programme.



## CONCLUSIONS

- MetGen is the friendly enzyme company
- MetGen solutions are tailored to customer specific need
- MetGen offers many solutions for biorefineries
- MetGen has a technology platform to create new enzymes with industry-leading speed
- MetGen is open to discuss flexible business models in licensing and enzyme supply